

(1) advise the points of contact with respect to the Initiative; and

(2) evaluate whether, and make recommendations in writing to the Board to ensure that—

(A) funds authorized for the Initiative are distributed and used in a manner that is consistent with the objectives, purposes, and considerations of the Initiative;

(B) solicitations are open and competitive with awards made annually and that objectives and evaluation criteria of the solicitations are clearly stated and minimally prescriptive, with no areas of special interest;

(C) the points of contact are funding proposals under this chapter that are selected on the basis of merit, as determined by an independent panel of scientific and technical peers predominantly from outside the Departments of Agriculture and Energy; and

(D) activities under this chapter are carried out in accordance with this chapter.

#### (d) Coordination

To avoid duplication of effort, the Advisory Committee shall coordinate its activities with those of other Federal advisory committees working in related areas.

#### (e) Meetings

The Advisory Committee shall meet at least quarterly to enable the Advisory Committee to carry out the duties of the Advisory Committee under subsection (c).

#### (f) Terms

Members of the Advisory Committee shall be appointed for a term of 3 years, except that—

(1) one-third of the members initially appointed shall be appointed for a term of 1 year; and

(2) one-third of the members initially appointed shall be appointed for a term of 2 years.

(Pub. L. 106-224, title III, § 306, June 20, 2000, 114 Stat. 432; Pub. L. 109-58, title IX, § 941(d), Aug. 8, 2005, 119 Stat. 874.)

#### REFERENCES IN TEXT

Executive Order No. 13134, referred to in subsec. (a), is set out as a note under section 8601 of this title.

#### AMENDMENTS

2005—Subsec. (b)(1)(A). Pub. L. 109-58, § 941(d)(1)(A), substituted “biofuels” for “biobased industrial products”.

Subsec. (b)(1)(B). Pub. L. 109-58, § 941(d)(1)(C), added subpar. (B). Former subpar. (B) redesignated (C).

Subsec. (b)(1)(C), (D). Pub. L. 109-58, § 941(d)(1)(B), (E), redesignated subpars. (B) and (C) as (C) and (D), respectively, and substituted “fuels and biobased products” for “industrial products”. Former subpar. (D) redesignated (E).

Subsec. (b)(1)(E). Pub. L. 109-58, § 941(d)(1)(B), redesignated subpar. (D) as (E). Former subpar. (E) redesignated (F).

Subsec. (b)(1)(F). Pub. L. 109-58, § 941(d)(1)(D), which directed amendment of subpar. (F) by substituting “2 individuals have” for “an individual has”, was executed by substituting “2 individuals” for “an individual” to reflect the probable intent of Congress.

Pub. L. 109-58, § 941(d)(1)(B), redesignated subpar. (E) as (F). Former subpar. (F) redesignated (G).

Subsec. (b)(1)(G). Pub. L. 109-58, § 941(d)(1)(B), (E), redesignated subpar. (F) as (G) and substituted “fuels and

biobased products” for “industrial products”. Former subpar. (G) redesignated (H).

Subsec. (b)(1)(H). Pub. L. 109-58, § 941(d)(1)(B), (F), redesignated subpar. (G) as (H) and inserted “and environmental” before “analysis”. Former subpar. (H) redesignated (I).

Subsec. (b)(1)(I). Pub. L. 109-58, § 941(d)(1)(B), (E), redesignated subpar. (H) as (I) and substituted “fuels and biobased products” for “industrial products”. Former subpar. (I) redesignated (J).

Subsec. (b)(1)(J), (K). Pub. L. 109-58, § 941(d)(1)(B), redesignated subpars. (I) and (J) as (J) and (K), respectively.

Subsec. (c)(2)(A). Pub. L. 109-58, § 941(d)(2)(A), substituted “objectives, purposes, and considerations” for “goals”.

Subsec. (c)(2)(B). Pub. L. 109-58, § 941(d)(2)(C), added subpar. (B). Former subpar. (B) redesignated (C).

Subsec. (c)(2)(C). Pub. L. 109-58, § 941(d)(2)(B), (D), redesignated subpar. (B) as (C) and inserted “predominantly from outside the Departments of Agriculture and Energy” after “technical peers”. Former subpar. (C) redesignated (D).

Subsec. (c)(2)(D). Pub. L. 109-58, § 941(d)(2)(B), redesignated subpar. (C) as (D).

### § 8606. Biomass Research and Development Initiative

#### (a) In general

The Secretary of Agriculture and the Secretary of Energy, acting through their respective points of contact and in consultation with the Board, shall establish and carry out a Biomass Research and Development Initiative under which competitively awarded grants, contracts, and financial assistance are provided to, or entered into with, eligible entities to carry out research on, and development and demonstration of, biobased fuels and biobased products, and the methods, practices and technologies, for their production.

#### (b) Objectives

The objectives of the Initiative are to develop—

(1) technologies and processes necessary for abundant commercial production of biobased fuels at prices competitive with fossil fuels;

(2) high-value biobased products—

(A) to enhance the economic viability of biobased fuels and power; and

(B) as substitutes for petroleum-based feedstocks and products; and

(3) a diversity of sustainable domestic sources of biomass for conversion to biobased fuels and biobased products.

#### (c) Purposes

The purposes of the Initiative are—

(1) to increase the energy security of the United States;

(2) to create jobs and enhance the economic development of the rural economy;

(3) to enhance the environment and public health; and

(4) to diversify markets for raw agricultural and forestry products.

#### (d) Technical areas

To advance the objectives and purposes of the Initiative, the Secretary of Agriculture and the Secretary of Energy, in consultation with the Administrator of the Environmental Protection Agency and heads of other appropriate depart-

ments and agencies (referred to in this section as the “Secretaries”), shall direct research and development toward—

(1) feedstock production through the development of crops and cropping systems relevant to production of raw materials for conversion to biobased fuels and biobased products, including—

(A) development of advanced and dedicated crops with desired features, including enhanced productivity, broader site range, low requirements for chemical inputs, and enhanced processing;

(B) advanced crop production methods to achieve the features described in subparagraph (A);

(C) feedstock harvest, handling, transport, and storage; and

(D) strategies for integrating feedstock production into existing managed land;

(2) overcoming recalcitrance of cellulosic biomass through developing technologies for converting cellulosic biomass into intermediates that can subsequently be converted into biobased fuels and biobased products, including—

(A) pretreatment in combination with enzymatic or microbial hydrolysis; and

(B) thermochemical approaches, including gasification and pyrolysis;

(3) product diversification through technologies relevant to production of a range of biobased products (including chemicals, animal feeds, and cogenerated power) that eventually can increase the feasibility of fuel production in a biorefinery, including—

(A) catalytic processing, including thermochemical fuel production;

(B) metabolic engineering, enzyme engineering, and fermentation systems for biological production of desired products or cogeneration of power;

(C) product recovery;

(D) power production technologies; and

(E) integration into existing biomass processing facilities, including starch ethanol plants, paper mills, and power plants; and

(4) analysis that provides strategic guidance for the application of biomass technologies in accordance with realization of improved sustainability and environmental quality, cost effectiveness, security, and rural economic development, usually featuring system-wide approaches.

**(e) Additional considerations**

Within the technical areas described in subsection (d), and in addition to advancing the purposes described in subsection (c) and the objectives described in subsection (b), the Secretaries shall support research and development—

(1) to create continuously expanding opportunities for participants in existing biofuels production by seeking synergies and continuity with current technologies and practices, such as the use of dried distillers grains as a bridge feedstock;

(2) to maximize the environmental, economic, and social benefits of production of

biobased fuels and biobased products on a large scale through life-cycle economic and environmental analysis and other means; and

(3) to assess the potential of Federal land and land management programs as feedstock resources for biobased fuels and biobased products, consistent with the integrity of soil and water resources and with other environmental considerations.

**(f) Eligible entities**

To be eligible for a grant, contract, or assistance under this section, an applicant shall be—

(1) an institution of higher education;

(2) a National Laboratory;

(3) a Federal research agency;

(4) a State research agency;

(5) a private sector entity;

(6) a nonprofit organization; or

(7) a consortium of two or more entities described in paragraphs (1) through (6).

**(g) Administration**

**(1) In general**

After consultation with the Board, the points of contact shall—

(A) publish annually one or more joint requests for proposals for grants, contracts, and assistance under this section;

(B) require that grants, contracts, and assistance under this section be awarded competitively, on the basis of merit, after the establishment of procedures that provide for scientific peer review by an independent panel of scientific and technical peers; and

(C) give some preference to applications that—

(i) involve a consortia of experts from multiple institutions;

(ii) encourage the integration of disciplines and application of the best technical resources; and

(iii) increase the geographic diversity of demonstration projects.

**(2) Distribution of funding by technical area**

Of the funds authorized to be appropriated for activities described in this section, funds shall be distributed for each of fiscal years 2007 through 2010 so as to achieve an approximate distribution of—

(A) 20 percent of the funds to carry out activities for feedstock production under subsection (d)(1);

(B) 45 percent of the funds to carry out activities for overcoming recalcitrance of cellulosic biomass under subsection (d)(2);

(C) 30 percent of the funds to carry out activities for product diversification under subsection (d)(3); and

(D) 5 percent of the funds to carry out activities for strategic guidance under subsection (d)(4).

**(3) Distribution of funding within each technical area**

Within each technical area described in paragraphs (1) through (3) of subsection (d), funds shall be distributed for each of fiscal years 2007 through 2010 so as to achieve an approximate distribution of—

(A) 15 percent of the funds for applied fundamentals;

(B) 35 percent of the funds for innovation; and

(C) 50 percent of the funds for demonstration.

**(4) Matching funds**

**(A) In general**

A minimum 20 percent funding match shall be required for demonstration projects under this chapter.

**(B) Commercial applications**

A minimum of 50 percent funding match shall be required for commercial application projects under this chapter.

**(5) Technology and information transfer to agricultural users**

The Administrator of the Cooperative State Research, Education, and Extension Service and the Chief of the Natural Resources Conservation Service shall ensure that applicable research results and technologies from the Initiative are adapted, made available, and disseminated through those services, as appropriate.

(Pub. L. 106-224, title III, §307, June 20, 2000, 114 Stat. 433; Pub. L. 107-171, title IX, §9008(a)(1), May 13, 2002, 116 Stat. 483; Pub. L. 108-148, title II, §201(a), Dec. 3, 2003, 117 Stat. 1901; Pub. L. 109-58, title IX, §941(e), Aug. 8, 2005, 119 Stat. 875.)

AMENDMENTS

2005—Subsec. (a). Pub. L. 109-58, §941(e)(1), substituted “research on, and development and demonstration of, biobased fuels and biobased products, and the methods, practices and technologies, for their production” for “research on biobased industrial products”.

Subsecs. (b) to (g). Pub. L. 109-58, §941(e)(2), added subsecs. (b) to (g) and struck out former subsecs. (b) to (e), which related, respectively, to purposes of grants, contracts, and assistance, eligible entities, uses of grants, contracts, and assistance, and transfer of technology and information to agricultural users.

2003—Subsec. (d)(5). Pub. L. 108-148 added par. (5).

2002—Subsec. (f). Pub. L. 107-171 struck out subsec. (f), which provided that in addition to funds appropriated for biomass research and development under the general authority of the Secretary of Energy to conduct research and development programs (which could also be used to carry out this chapter), there were authorized to be appropriated to the Department of Agriculture to carry out this chapter \$49,000,000 for each of fiscal years 2000 through 2005.

**§ 8607. Administrative support and funds**

**(a) In general**

To the extent administrative support and funds are not provided by other agencies under subsection (b), the Secretary of Energy and the Secretary of Agriculture may provide such administrative support and funds of the Department of Energy and the Department of Agriculture to the Board and the Advisory Committee as are necessary to enable the Board and the Advisory Committee to carry out their duties under this chapter.

**(b) Other agencies**

The heads of the agencies referred to in section 8604(b)(3) of this title, and the other members appointed under section 8604(b)(4) of this

title, may, and are encouraged to, provide administrative support and funds of their respective agencies to the Board and the Advisory Committee.

**(c) Limitation**

Not more than 4 percent of the amount appropriated for each fiscal year under section 8606(f)<sup>1</sup> of this title may be used to pay the administrative costs of carrying out this chapter.

(Pub. L. 106-224, title III, §308, June 20, 2000, 114 Stat. 436.)

REFERENCES IN TEXT

Subsection (f) of section 8606 of this title, referred to in subsec. (c), was repealed by Pub. L. 107-171, title IX, §9008(a)(1), May 13, 2002, 116 Stat. 483.

**§ 8608. Reports**

**(a) Initial report**

Not later than 180 days after June 20, 2000, the Secretary of Energy and the Secretary of Agriculture shall jointly submit to Congress a report that—

(1) identifies the points of contact, the members of the Board, and the members of the Advisory Committee;

(2) describes the status of current biobased industrial product research and development efforts in both the Federal Government and private sector;

(3) includes a section prepared by the Board that establishes a set of criteria to assess the potential of biobased industrial products, which shall include for both biomass production and transformation into biobased industrial products—

(A) an energy accounting;

(B) an environmental impact assessment; and

(C) an economic assessment; and

(4) describes the research and development goals of the Initiative, including how funds will be allocated in order to accomplish those goals.

**(b) Annual reports**

For each fiscal year for which funds are made available to carry out this chapter, the Secretary of Energy and the Secretary of Agriculture shall jointly submit to Congress a detailed report on—

(1) the status and progress of the Initiative, including a report from the Advisory Committee on whether funds appropriated for the Initiative have been distributed and used in a manner that—

(A) is consistent with the objectives, purposes, and additional considerations described in subsections (b) through (e) of section 8606 of this title;

(B) uses the set of criteria established under subsection (a)(3);

(C) achieves the distribution of funds described in paragraphs (2) and (3) of section 8606(g) of this title; and

(D) takes into account any recommendations that have been made by the Advisory Committee;

<sup>1</sup> See References in Text note below.